



## Mr. W. Thor Zollinger

**Phone:** 208.526.1119

**Email:** w.zollinger@icp.doe.gov

### Education

Mr. Thor Zollinger received his bachelor's degree in mechanical engineering at Utah State University in 1983 with a minor in mathematics, and completed Naval Nuclear Power School in 1985 to qualify as Engineering Duty Officer.

### Experience and Achievements

Mr. Zollinger has performed as a research and project engineer in the Robotics and Remote Systems group at the INL for the past twelve years, after serving a similar function at the Savannah River Site. He is currently heavily involved in the remote controlled machines used on the Accelerated Retrieval Project for excavation and waste removal. Previous projects include the Yucca Mountain Closure Cell, the automation of radioactive waste radiography equipment, hydrogen production techniques, development of handling equipment for the Remote Treatment Project opening radioactive waste containers, design of tank and pipe inspection robots, remote tooling for hot cells and reactor vessels, and numerous other robotic devices.

Mr. Zollinger was recently involved in commercializing an explosion-proof submersible inspection robot for petroleum storage tanks where he acted as Chief Engineer for the company. His responsibilities included directing and managing the design team, performing the bulk of the mechanical design work, concept generation and innovation, sonar subsystems, and publicity and reporting tasks.

### R&D 100 Awards

Maverick Tank Inspection Robot - 1999

## INL'S LIFETIME ACHIEVEMENT AWARD FOR INVENTORSHIP

### Patents

- U.S. Patent 5,758,731- Method and Apparatus for Advancing Tethers
- U.S. Patent 5,794,718 - Maneuvering Impact Boring Head
- U.S. Patent 5,819,863 - Vehicle for Carrying an Object of Interest
- U.S. Patent 6,997,012 - Method of Liquefying a Gas
- U.S. Patent 7,078,012 - Method of Producing a High Pressure Gas